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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,054	06/24/2003	Dae-Ho Choo	61920219D1	1023

7590 12/15/2003

McGuire Woods LLP
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EXAMINER

RUDE, TIMOTHY L

ART UNIT PAPER NUMBER

2871

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,054	CHOO ET AL.	
	Examiner	Art Unit	
	Timothy L Rude	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 and 56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-32 and 56 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims

Claims 33-55 are canceled. Claims 1-28 are amended. Claim 56 is added.

Election/Restrictions

Restriction to one of the following inventions as used for the manufacture of liquid crystal cells is required under 35 U.S.C. 121:

- I. Claims drawn to a sealant-applying unit, classified in class 349, subclass 190.
- II. Claims, drawn to a liquid crystal depositing unit, classified in class 349, subclass 189.
- III. Claims drawn to a substrate-attaching unit, classified in class 349, subclass 187.
- IV. Claims drawn to a loading unit, classified in class 349, subclass 187.
- V. Claims drawn to a substrate-combination unit, classified in class 349, subclass 187.
- VI. Claims drawn to a heat-treating unit, classified in class 349, subclass 187.
- VII. Claims drawn to a spacer-dispersing unit, classified in class 349, subclass 187.

- VIII. Claims drawn to a substrate-attaching unit, classified in class 349, subclass 187.
- IX. Claims drawn to an in-line conveying unit, classified in class 349, subclass 187.
- X. Claims drawn to vacuum chamber(s), classified in class 349, subclass 187.
- XI. Claims drawn to an exposure unit, classified in class 349, subclass 187.

Inventions I-XI are mutually unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions each comprise different apparatus for performing different and unrelated manufacturing process step(s). Although many fall within the subclass for nominal manufacturing methods or post manufacturing processing of liquid crystal cell, the general nature of said apparatus would entail search in many other classes for manufacturing equipment capable of performing basic functions of applying, depositing, attaching, combining, heating, conveying, etc. Also, Applicant is respectfully advised that mere automation is considered an obvious expedient, not patentable over known manual methods.

Invention II contains claims directed to the following patentably distinct species of the claimed invention:

Species A, (see claims 16 and 22), drawn to a syringe-type depositing unit.

Species B, (see claims 17 and 23), drawn to a spray-type depositing unit.

Invention VI contains claims directed to the following patentably distinct species of the claimed invention:

Species C, (see claim 19), drawn to a heating unit that uses infrared rays.

Species D, drawn to a heating unit that does not depend upon infrared rays.

Invention X contains claims directed to the following patentably distinct species of the claimed invention:

Species E, claim 31, drawn to vacuum chambers in series.

Species F, claim 17, drawn to vacuum chambers in parallel.

Applicant is required under 35 U.S.C. 121 to elect one invention from I-XI. Also, if invention II is elected, Applicant is required under 35 U.S.C. 121 to elect a single disclosed species A or B, if invention VI is elected, Applicant is required under 35 U.S.C. 121 to elect a single disclosed species C or D, and if invention X is elected,

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species E or F for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, many claims are improper with respect to the restriction requirement, so a determination as to generic claims cannot be made.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election. Applicant may choose to amend claims as need be to preclude improper dependencies and limitations drawn to non-elected subject matter.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (703) 305-0418. The examiner can normally be reached on Monday through Thursday.

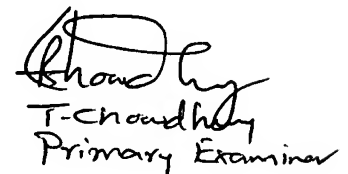
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



Timothy L Rude
Examiner
Art Unit 2871

TLR



T. Choudhury
Primary Examiner